What is claimed is:

1. A method for detecting endpoint of a plasma-assisted etch process in production of a photomask comprising:

providing a blank photomask comprising a photosensitive resist layer on the top of said blank photomask;

creating soluble and insoluble portions in said photosensitive resist layer;

removing soluble portions of said photosensitive resist layer, thereby exposing an underlying layer of said blank photomask;

commencing said plasma-assisted etch process on said underlying layer of said blank photomask;

defining said endpoint in the form of a predetermined change in at least one of parameters of said plasma-assisted etch process;

monitoring said at least one of said parameters;

detecting said predetermined change in said at least one of said parameters; and

controlling said plasma-assisted etch process based on the detection of said predetermined change in said at least one of said parameters.

2. The method of Claim 1, wherein said step of controlling said plasma-assisted etch process comprises the step of terminating said plasma-assisted etch process.

3. The method of Claim 1, wherein said step of monitoring said at least one of said parameters further comprises the step of modifying a signal display of said at least one of said parameters to display said predetermined change in said at least one of said parameters.

4. The method of Claim 3, wherein said step of modifying said signal display comprises the step of amplifying said signal display.

5. The method of Claim 3, wherein said step of modifying said signal display comprises the step of re-scaling said signal display.

6. The method of Claim 1, wherein said plasma-assisted etch process uses an automatic matching network.

7. The method of Claim 6, wherein said at least one of said parameters is an automatic matching network parameter.

8. The method of Claim 1, wherein said controlling step is performed manually.

9. The method of Claim 1, wherein said controlling step is performed automatically.

10. The method of Claim 9, wherein said automatically controlling step comprises the step of using an algorithm.

11. The method of Claim 1, wherein said monitoring step is performed automatically.

12. The method of Claim 11, wherein said automatically monitoring step comprises the step of using an algorithm.

13. The method of Claim 1, wherein said detecting step is performed automatically.

14. The method of Claim 13, wherein said automatically detecting step comprises the step of using an algorithm.

15. The method of Claim 1, wherein a plasma for said plasma-assisted etch process comprises bias radio-frequency plasma.

16. The method of Claim 1, wherein a plasma for said plasma-assisted etch process comprises inductively coupled plasma.

17. The method of Claim 1, wherein a plasma for said plasma-assisted etch process comprises bias radio-frequency plasma and inductively coupled plasma.

18. The method of Claim 1, wherein said plasma-assisted etch process comprises a reactive ion etch process.

19. The method of Claim 7, wherein said automatic matching network parameter is an automatic matching network load.

20. The method of Claim 19, wherein said automatic matching network load is an automatic matching network load for inductively coupled plasma.

21. The method of Claim 19, wherein said automatic matching network load is an automatic matching network load for bias radio-frequency plasma.

22. The method of Claim 7, wherein said automatic matching network parameter is an automatic matching network tune.

23. The method of Claim 22, wherein said automatic matching network tune is an automatic matching network tune for inductively coupled plasma.

24. The method of Claim 22, wherein said automatic matching network tune is an automatic matching network tune for bias radio-frequency plasma.

25. The method of Claim 22, wherein said automatic matching network tune is a capacitance of at least one variable capacitor in said automatic matching network.

26. The method of Claim 1, wherein said at least one of said parameters is a reflected power for inductively coupled plasma.

27. The method of Claim 1, wherein said at least one of said parameters is a pump rate of a vacuum pump for said plasma-assisted etch process.

28. The method of Claim 1, wherein said photomask is a binary photomask.

29. The method of Claim 28, wherein said underlying layer is a chromium layer of said binary photomask.

30. The method of Claim 1, wherein said photomask is a phaseshift photomask.

31. The method of Claim 30, wherein said underlying layer is a chromium layer of said phaseshift photomask.

32. The method of Claim 30, wherein said underlying layer is a MoSi layer of said phaseshift photomask.

33. A method for detecting endpoint of a plasma-assisted etch process in production of a photomask comprising:

providing a blank photomask comprising a photosensitive resist layer on the top of said blank photomask;

creating soluble and insoluble portions in said photosensitive resist layer;

removing soluble portions of said photosensitive resist layer, thereby exposing an underlying layer of said blank photomask;

commencing said plasma-assisted etch process on said underlying layer of said blank photomask;

defining said endpoint in the form of a change in one parameter of said plasma-assisted etch process;

monitoring said one parameter;

detecting said change in said one parameter; and

controlling said plasma-assisted etch process based on the detection of said change in said one parameter.

34. The method of Claim 33, wherein said step of controlling said plasma-assisted etch process comprises the step of terminating said plasma-assisted etch process.

35. The method of Claim 33, wherein said step of monitoring said one parameter further comprises the step of modifying a signal display of said one parameter to display said change in said one parameter.

36. The method of Claim 35, wherein said step of modifying said signal display comprises the step of amplifying said signal display.

37. The method of Claim 35, wherein said step of modifying said signal display comprises the step of re-scaling said signal display.

38. The method of Claim 33, wherein said plasma-assisted etch process uses an automatic matching network.

39. The method of Claim 38, wherein said one parameter is an automatic matching network parameter.

40. The method of Claim 33, wherein said controlling step is performed manually.

41. The method of Claim 33, wherein said controlling step is performed automatically.

42. The method of Claim 41, wherein said automatically controlling step comprises the step of using an algorithm.

43. The method of Claim 33, wherein said monitoring step is performed automatically.

44. The method of Claim 43, wherein said automatically monitoring step comprises the step of using an algorithm.

45. The method of Claim 33, wherein said detecting step is performed automatically.

46. The method of Claim 45, wherein said automatically detecting step comprises the step of using an algorithm.

47. The method of Claim 33, wherein a plasma for said plasma-assisted etch process comprises bias radio-frequency plasma.

48. The method of Claim 33, wherein a plasma for said plasma-assisted etch process comprises inductively coupled plasma.

49. The method of Claim 33, wherein a plasma for said plasma-assisted etch process comprises bias radio-frequency plasma and inductively coupled plasma.

50. The method of Claim 33, wherein said plasma-assisted etch process comprises a reactive ion etch process.

51. The method of Claim 39, wherein said automatic matching network parameter is an automatic matching network load.

52. The method of Claim 51, wherein said automatic matching network load is an automatic matching network load for inductively coupled plasma.

53. The method of Claim 51, wherein said automatic matching network load is an automatic matching network load for bias radio-frequency plasma.

54. The method of Claim 39, wherein said automatic matching network parameter is an automatic matching network tune.

55. The method of Claim 54, wherein said automatic matching network tune is an automatic matching network tune for inductively coupled plasma.

56. The method of Claim 54, wherein said automatic matching network tune is an automatic matching network tune for bias radio-frequency plasma.

57. The method of Claim 54, wherein said automatic matching network tune is a capacitance of at least one variable capacitor in said automatic matching network.

58. The method of Claim 33, wherein said one parameter is a reflected power for inductively coupled plasma.

59. The method of Claim 33, wherein said one parameter is a pump rate of a vacuum pump for said plasma-assisted etch process.

60. The method of Claim 33, wherein said photomask is a binary photomask.

61. The method of Claim 60, wherein said underlying layer is a chromium layer of said binary photomask.

62. The method of Claim 33, wherein said photomask is a phaseshift photomask.

63. The method of Claim 62, wherein said underlying layer is a chromium layer of said phaseshift photomask.

64. The method of Claim 62, wherein said underlying layer is a MoSi layer of said phaseshift photomask.

65. A method for detecting endpoint of a plasma-assisted etch process in production of a photomask, wherein said plasma-assisted etch process uses an automatic matching network, said method comprising:

providing a blank photomask comprising a photosensitive resist layer on the top of said blank photomask;

creating soluble and insoluble portions in said photosensitive resist layer;

removing soluble portions of said photosensitive resist layer, thereby exposing an underlying layer of said blank photomask;

commencing said plasma-assisted etch process on said underlying layer of said blank photomask;

defining said endpoint in the form of a predetermined change in at least one of automatic matching network parameters of said plasma-assisted etch process;

monitoring said at least one of said automatic matching network parameters;

detecting said predetermined change in said at least one of said automatic matching network parameters; and

controlling said plasma-assisted etch process based on the detection of said predetermined change in said at least one of said automatic matching network parameters.

66. The method of Claim 65, wherein said step of controlling said plasma-assisted etch process comprises the step of terminating said plasma-assisted etch process.

67. The method of Claim 65, wherein said step of monitoring said at least one of said parameters further comprises the step of modifying a signal display of said at least one of said parameters to display said predetermined change in said at least one of said parameters.

68. The method of Claim 67, wherein said step of modifying said signal display comprises the step of amplifying said signal display.

69. The method of Claim 67, wherein said step of modifying said signal display comprises the step of re-scaling said signal display.

70. The method of Claim 65, wherein said controlling step is performed manually.

71. The method of Claim 65, wherein said controlling step is performed automatically.

72. The method of Claim 71, wherein said automatically controlling step comprises the step of using an algorithm.

73. The method of Claim 65, wherein said monitoring step is performed automatically.

74. The method of Claim 73, wherein said automatically monitoring step comprises the step of using an algorithm.

75. The method of Claim 65, wherein said detecting step is performed automatically.

76. The method of Claim 75, wherein said automatically detecting step comprises the step of using an algorithm.

77. The method of Claim 65, wherein a plasma for said plasma-assisted etch process comprises bias radio-frequency plasma.

78. The method of Claim 65, wherein a plasma for said plasma-assisted etch process comprises inductively coupled plasma.

79. The method of Claim 65, wherein a plasma for said plasma-assisted etch process comprises bias radio-frequency plasma and inductively coupled plasma.

80. The method of Claim 65, wherein said plasma-assisted etch process comprises a reactive ion etch process.

81. The method of Claim 65, wherein said at least one of said automatic matching network parameters is an automatic matching network load.

82. The method of Claim 81, wherein said automatic matching network load is an automatic matching network load for inductively coupled plasma.

83. The method of Claim 81, wherein said automatic matching network load is an automatic matching network load for bias radio-frequency plasma.

84. The method of Claim 65, wherein said at least one of said automatic matching network parameters is an automatic matching network tune.

85. The method of Claim 84, wherein said automatic matching network tune is an automatic matching network tune for inductively coupled plasma.

86. The method of Claim 84, wherein said automatic matching network tune is an automatic matching network tune for bias radio-frequency plasma.

87. The method of Claim 84, wherein said automatic matching network tune is a capacitance of at least one variable capacitor in said automatic matching network.

88. The method of Claim 65, wherein said at least one of said automatic matching network parameters is a reflected power for inductively coupled plasma.

89. The method of Claim 65, wherein said photomask is a binary photomask.

90. The method of Claim 89, wherein said underlying layer is a chromium layer of said binary photomask.

91. The method of Claim 65, wherein said photomask is a phaseshift photomask.

92. The method of Claim 91, wherein said underlying layer is a chromium layer of said phaseshift photomask.

93. The method of Claim 91, wherein said underlying layer is a MoSi layer of said phaseshift photomask.